REMARKS

The applicant respectfully requests reconsideration in view of the following remarks. The applicant has amended the claims to overcome the 35 U.S.C. 112, second paragraph rejections. Support for amended claim 1 can be found in claim 6 in the definition of the ring, in particular Q, X and T. In addition, support for the phrase, "Cyl and Cy2 are linked to one another via substituents and thus define a polycyclic, aliphatic or aromatic ring system wherein this ring system is a five or six-membered ring system which can be optionally substituted by R1" can be found in the examples 55, 56 and 57. In addition, the applicant has The applicant has incorporated claims 14, 16 and 17 into claim 6. Support for newly added claims 31 and 32 can be found in claim 1 and examples. Support for newly added claim 33-35 can be found in claim 6. No new matter has been added.

The applicant has cancelled claims 9, 10, 14, 16 and17. The applicant has added claims 31 -35. The applicant has added five claims and cancelled 5 claims. No additional fee is required for the additional claims No new matter has been added.

The applicant respectfully requests that the withdrawn claims be rejoined. However, if the Examiner will not rejoin the withdrawn claims the applicant authorizes the Examiner to cancel the withdrawn claims.

The applicant respectfully request that the IDS filed on November 11, 2011 along with the IDS being filed with this application be made of record.

Claims 1-3, 6-17, 19, 22 and 24-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The reason for rejection was that Cyl and Cy2 were defined as homo- or hetero-cyclic ring without defining the number of carbon atoms and/or the heteroatoms present in these rings.

In the pending claims, the applicant has previously amended Cyl and Cy2 as aromatic homo- or heterocyclic ring having 5 or 6 ring atoms. Therefore, the applicant believes that the size of the ring is sufficiently defined. Furthermore, the applicant has defined that Cyl and Cy2 each consists of carbon, nitrogen, oxygen or sulfur or a mixture thereof. These atoms are defined in claims 6 to 8 as being part of Cyl and Cy2.

It is evident for the person skilled in the art that a 5-membered aromatic group must be a heterocyclic ring group containing carbon atoms and one atom selected from 0, S or N and possibly further nitrogen atoms. It is furthermore evident for the person skilled in the art that a 6-membered aromatic group cannot contain any 0 or S atoms, but contains carbon atoms and optionally one or more nitrogen atoms. Furthermore, it is evident that such aromatic homo- or heterocyclic group can also be substituted.

The applicant agrees that both, Cyl and Cy2 are bonded to the metal via a ring atom. The applicant has amended the index c = 0.

The Examiner furthermore objects to the term "Cyl and Cy2 are linked to one another via substituents" as the substituents are not defined. To overcome this objection, the applicant has amended this definition to "Cyl and Cy2 are linked to one another via substituents" to read: "Cyl and Cy2 are linked to one another via substituents and thus define a polycyclic, aliphatic or aromatic ring system wherein this ring system is a six-membered ring system which can be optionally substituted by R1". The applicant believes that the claims as amended are in compliance with 35 U.S.C. 112, second paragraph. For the above reasons, this rejection should be withdrawn.

UDC patent, US 7,332,232 (UDC patent) embraces complexes having bipodal ligands and OLEDs comprising these complexes. In claim 1 of UDC, an OLED comprising a metal complex is claimed wherein the metal can be a transition metal and wherein two bidentate ligands are covalently linked by a linking group and wherein the ligands are bound to the metal through a carbon-metal bond and a nitrogen-metal bond to form a cyclometallated ring.

It is noted that the subject matter of the applicant's claims 1-27 is substantially the same as the original claims 1-27 and have been pending since the application was filed which is prior to the issued date of UDC's patent (February 19, 2008). The applicant is entitled to the PCT filing date of October 21, 2004 and believes that they are entitled to the effective filing date of their priority application which is October 30, 2003. The applicant is in the process of procuring an English certified translation of their priority document.

UDC patent is a continuation in part of US Serial no. 10.771,423 and would be entitled to at most a filend date of February 3, 2004. However, if UDC is not entitled to their parent application, then they would only be entitled to a filing date of June 3, 2004.

UDC's claims are much broader than the applicant's pending claims. UDC's claims that overlap (see the attached claim chart). In Summary, the following UDC's claims would not be patentable over the applicant's application. For example,

-
- claim 22, which is an independent claim (with Pt as the metal and X = -(CR2)- and L being photoactive ligands having the formula II wherein R1 and R2, R2 and R3, and R3 and R4 together form an aryl or heteroaryl group)

The applicant respectfully requests that an interference be declared.

There could be two counts in the alternative of the UDC' claim 1 or the applicant's claim 28. The second count could be the applicant's claim 1 and UDC's claim 22.

A one month extension has been paid. Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 14113-00003-US from which the undersigned is authorized to draw.

Dated: January 12, 2012

Respectfully submitted,

Electronic signature: /Ashley I. Pezzner/
Ashley I. Pezzner
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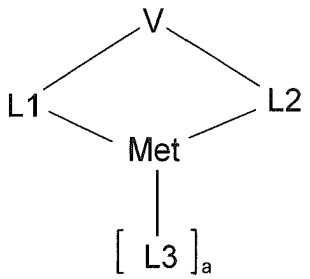
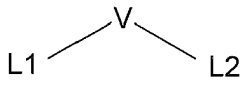
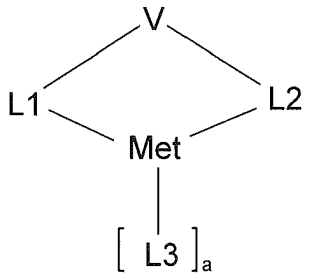
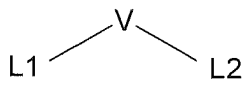
Attorney for Applicant

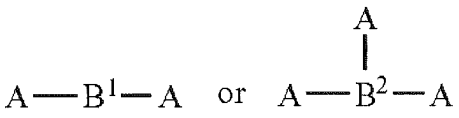
Claim Chart

UDC's claims	Corresponding Merck Claims
1. An organic light emitting device comprising an anode, a cathode, and an organic layer disposed between the anode and the cathode, wherein the organic layer comprises a phosphorescent organometallic emissive material comprising a transition metal, Tl, Pb, Bi, In, Sn, Sb or Te, and two or three bidentate ligands, wherein two or more of the bidentate ligands	Claim 28. An electronic device comprising at least one compound according to claim 1. Claim 1. A compound of the Structure 1  Structure 1 wherein Structure 1 Met is a metal {structure 1 is a two bidentate ligand since a =0} coordinated to a tetradentate chelating ligand Lig of Structure 2 Lig =  Structure 2

are covalently linked by a linking group, wherein, the bidentate ligands are selected from bidentate photoactive ligands, wherein each bidentate photoactive ligand is bound to the transition metal, Tl, Pb, Bi, In, Sn, Sb or Te through a carbon-metal bond and a nitrogen-metal bond to form a cyclometallated ring, and bidentate ancillary ligands, wherein at least one of the bidentate ligands is a bidentate photoactive ligand.	where V is a CR_2 R … V connects the two ligand moieties L1 and L2, which may be identical or different on each occurrence, **covalently to one another,** and where the two ligand moieties L1 and L2 satisfy Structure 3 L1, L2 =  Structure 3 Cy1 is, identically or differently on each occurrence, a substituted or unsubstituted aromatic homo- or heterocyclic ring having 5 or 6 ring atoms, which is bonded ionically, covalently or coordinatively to the metal via a ring atom, Cy2 is, identically or differently on each occurrence, a substituted or unsubstituted aromatic homo- or heterocyclic ring having 5 or 6 ring atoms, which is bonded ionically, covalently or coordinatively to the metal via a ring atom; and Cy1 is not identical to Cy2 and one of the two rings bonds via a metal-carbon bond and the other via nitrogen, and Cy1 and Cy2 are linked to one another via substituents and thus define a polycyclic, aliphatic or

	aromatic ring system wherein Cy1 and Cy2 can be optionally substituted by R^1, and wherein the Cy1 and Cy2 each consists of C, N, O, or S or a mixture thereof, and where L3, identically or differently on each occurrence, is a mono- or bidentate, neutral or monoanionic ligand, and where a is 0. **(This is a two bidentate ligands linked where each ligand is linked to a metal (Met) the metal could be M is Be, Mg, Ca, Sr, Ba, Al, Ga, In, Tl, Sc, Y, La, Cr, Mo, W, Fe, Ru, Os, Co, Rh, Ir, Ni, Pd, Pt, Cu, Ag, Au, Zn, Cd or Hg;**
2. The organic light emitting device of claim 1, wherein the linking group provides no π-conjugation between the linked bidentate ligands.	
3. The organic light emitting device of claim 1 wherein the transition metal is selected from the group consisting of Ir, Pt, Pd, Rh, Re, Os, Au, and Ag.	35. The electonic device as claimed in claim 27, wherein the device is an organic light emitting device and M is Ir. (see also claim 6)
4. The organic light emitting device of claim 1 wherein the transition metal is Ir.	35. The electonic device as claimed in claim 27, wherein

	the device is an organic light emitting device and wherein M is Ir. (see also claim 6)
5. An organic light emitting device comprising an anode, a cathode, and an organic layer disposed between the anode and the cathode, wherein the organic layer comprises an emissive material of the formula I [Xa--(L)b]M (I) wherein	Claim 28. An electronic device comprising at least one compound according to claim 1. Claim 1. A compound of the Structure 1  Structure 1
M is a transition metal having a molecular weight greater than 40, Tl, Pb, Bi, In, Sn, Sb or Te;	wherein Structure 1 contains a metal Met,
	coordinated to a tetradentate chelating ligand Lig of Structure 2 Lig =  Structure 2
X is a linking group that links two or more L, and is selected from the group consisting of **--$(CR_2)_d$--**, --$[O(CR_2)_e]O$--, or a group having the formula	where V is a CR_2



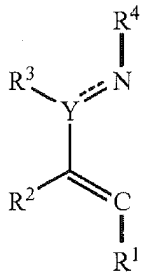
Wherein

A is $—(CR_2)_j$, or $-Z-(CR_2)_g—$;
Z is —O—, —NR—, or $—SiR_2—$;
B^1 is —O—, —NR—, —CR=CR—, aryl, heteroaryl,
B^2 is

alkyl, aryl, heteroaryl, cycloalkyl, or a heterocyclic group; each R is independently selected from H, alkyl, aralkyl, aryl and heteroaryl, d is 1 to 6, e is 1 to 6, f is 1 to 4, and g is 1 to 4;

L is a bidentate ligand selected from the group consisting of (i) bidentate photoactive ligands having the formula II

(II)



wherein the bidentate photoactive ligand is bound to the transition metal, Tl, Pb, Bi, In, Sn, Sb or Te through a carbon-metal bond and a nitrogen-metal bond to form a cyclometallated ring, Y is N or C, the

{corresponds to X in UDC patent}

R ...

V connects the two ligand moieties L1 and L2, which may be identical or different on each occurrence, **covalently to one another,** and

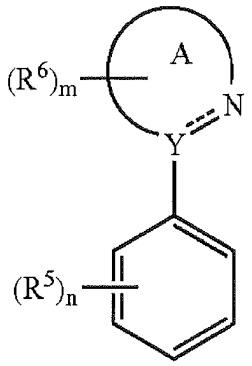
where the two ligand moieties L1 and L2 satisfy Structure 3

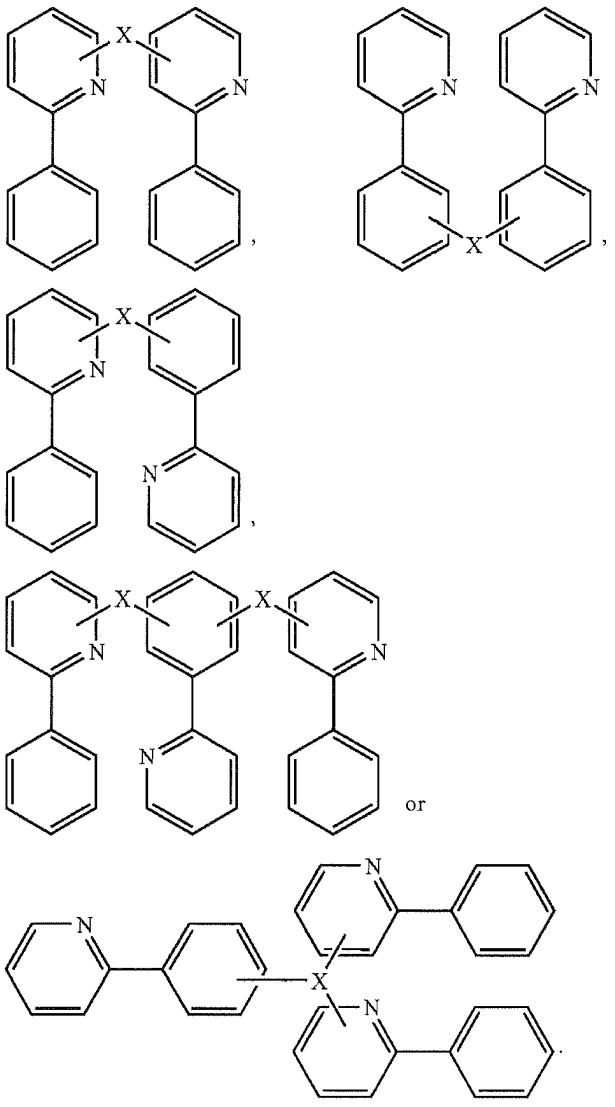
L1, L2 =

Structure 3

Cy1 is, identically or differently on each occurrence, a substituted or unsubstituted aromatic homo- or heterocyclic ring having 5 or 6 ring atoms, which is bonded ionically,

dotted line represents an optional double bond, R^1, R^2, R^3 and R^4 are independently selected from H, alkyl, or aryl, and additionally or alternatively, one or more of R^1 and R^2, R^2 and R^3, and R^3 and R^4 together from independently a **5 or 6-member cyclic group,** wherein said cyclic group is cycloalkyl, cycloheteroalkyl, aryl or heteroaryl; and wherein said cyclic group is optionally substituted by one or more substituents Z; each substituent Z is independently selected from the group consisting of alkyl, alkenyl, alkynyl, aralkyl, CN, CF.sub.3, NR.sub.2, NO.sub.2, OR, halo, and aryl, and additionally, or alternatively, two Z groups on adjacent ring atoms form a fused 5- or 6-membered aromatic group, and each R is independently selected from H, alkyl, aralkyl, aryl and heteroaryl; and (ii) bidentate ancillary ligands, a is 1 to 4; b is 2 or 3; and at least one L is selected from a bidentate photoactive ligand.	covalently or coordinatively to the metal via a ring atom, Cy2 is, identically or differently on each occurrence, a substituted or unsubstituted **aromatic homo- or heterocyclic ring having 5 or 6 ring atoms, which is bonded ionically, covalently** or coordinatively to the metal via a ring atom; and Cy1 is not identical to Cy2 and one of the two rings bonds via a metal-carbon bond and the other via nitrogen, and Cy1 and Cy2 are linked to one another via substituents and thus define a polycyclic, aliphatic or aromatic ring system wherein Cy1 and Cy2 can be optionally substituted by R^1, and wherein the Cy1 and Cy2 each consists of C, N, O, or S or a mixture thereof, and where L3, identically or differently on each occurrence, is a mono- or bidentate, neutral or monoanionic ligand, and where a is 0. **(X = -(CR2)- and L being photoactive ligands having the formula II wherein R1 and R2, R2 and R3, and R3 and R4 together form an aryl or heteroaryl group)**

6. The organic light emitting device of claim 5, wherein the photoactive ligands are selected from compounds of the formula IV  wherein: ring A is an aromatic heterocyclic ring or a fused aromatic heterocyclic ring with at least one nitrogen atom that coordinates to the metal M, Y is selected from carbon or nitrogen, each R.sup.5 is independently selected from the group consisting of alkyl, alkenyl, alkynyl, aralkyl, CN, CF.sub.3, NR.sub.2, NO.sub.2, OR, halo, and aryl, and additionally, or alternatively, two R.sup.5 groups on adjacent ring atoms form a fused 5- or 6-membered aromatic group, each R.sup.6 is independently selected from the group consisting of alkyl, alkenyl, alkynyl, aralkyl, CN, CF.sub.3, NR.sub.2, NO.sub.2, OR, halo, and aryl, and additionally, or alternatively, two R.sup.6 groups on adjacent ring atoms form a fused 5- or 6-membered aromatic group, each R is independently selected from H, alkyl, aralkyl, aryl and heteroaryl, n is 0 to 4, and m is 0 to 4. 7. The organic light emitting device of claim 5, wherein $[X_a\text{--}(L)_b]$ has the formula:	Claims 28 and 1. Claim 1 shows that the ligand contains N and can be a a substituted or unsubstituted aromatic homo- or heterocyclic ring having 5 or 6 ring atoms. (in claim 6 n and m can be 0). Claims 28 and 1 the first, second and third of



or

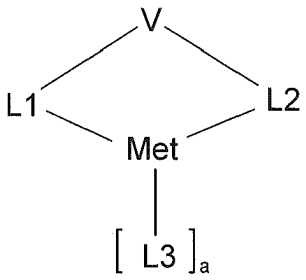
16. The organic light emitting device of claim 5, wherein two or more L comprise a phenyl moiety and X is a linking group that links the two or more L via a covalent bond to the phenyl moiety in each of the two or more L.

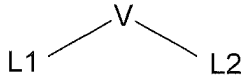
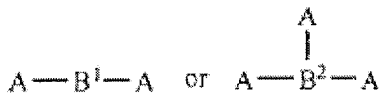
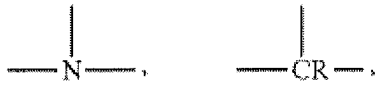
the depicted ligands are covered in claim 1.

Claims 28 and 1

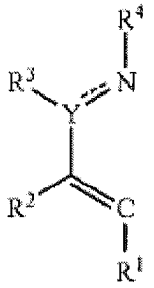
This ligand is covered in claim 1 when the ligand aromatic homo- or heterocyclic ring having 6 ring atoms.

(with two L groups)

20. The organic light emitting device of claim 5 wherein the transition metal is selected from the group consisting of Ir, Pt, Pd, Rh, Re, Os, Au, and Ag.	Claim 35. The electonic device as claimed in claim 27, wherein the device is an organic light emitting device and M is Ir. (see also claim 6)
21. The organic light emitting device of claim 5 wherein the transition metal is Ir.	Claim 35. The electonic device as claimed in claim 27, wherein the device is an organic light emitting device and wherein M is Ir. (see also claim 6)
22. A compound of the formula I $[X_a\text{-}(L)_b]$ M wherein,	Claim 1. A compound of the Structure 1  Structure 1 wherein Structure 1

M is a transition metal having a molecular weight greater than 40, Tl, Pb, Bi, In, Sn, Sb or Te;	contains a metal Met,
	coordinated to a tetradentate chelating ligand Lig of Structure 2
	Lig = 
	Structure 2
X is a linking group that links two or more L, and is selected from the group consisting of **$-(CR_2)_d-$**, $-[O(CR_2)_e]O-$, or a group having the formula	where **V is a CR_2**
	R …
	V connects the two ligand moieties L1 and L2, which may be identical or different on each occurrence, **covalently to one another,** and
wherein A is $-(CR_2)_j-$, or $-Z-(CR_2)_g-$; Z is -O-, -NR-, or $--SiR_2--$; B^1 is -O-, -NR-, -CR=CR-, aryl, heteroaryl, B^2 is	
	
alkyl, aryl, heteroaryl, cycloalkyl, or a heterocyclic group; each R is independently selected from H, alkyl, aralkyl, aryl and heteroaryl, d is 1 to 6, e is 1 to 6, f is 1 to 4, and g is 1 to 4; L is a bidentate ligand selected from the group consisting of (i) bidentate photoactive ligands having the formula II	where the two ligand moieties L1 and L2 satisfy Structure 3

(II)



wherein the bidentate photoactive ligand is bound to the transition metal, Tl, Pb, Bi, In, Sn, Sb or Te through a carbon-metal bond and a nitrogen-metal bond to form a cyclometallated ring,
Y is N or C,
the dotted line represents an optional double bond,
R^1, R^2, R^3 and R^4 are independently selected from H, alkyl, or aryl, and additionally or alternatively, one or more of R^1 and R^2, R^2 and R^3, and R^3 and R^4 together from independently a **5 or 6-member cyclic group, wherein said cyclic group is cycloalkyl, cycloheteroalkyl, aryl or heteroaryl**; and wherein said cyclic group is optionally substituted by one or more substituents Z;
each substituent Z is independently selected from the group consisting of alkyl, alkenyl, alkynyl, aralkyl, CN, CF_3, NR_2, NO_2, OR, halo, and aryl, and additionally, or alternatively, two Z groups on adjacent ring atoms form a fused 5- or 6-membered aromatic group, and
(ii) bidentate ancillary ligands,
each R is independently selected from H, alkyl, aralkyl, aryl and heteroaryl;
a is 1 to 4;
b is 2 or 3; and
at least one L is selected from a bidentate photoactive ligand.

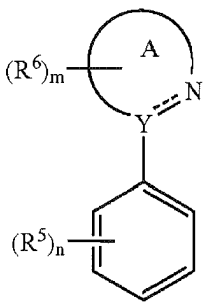
L1, L2 =

Structure 3

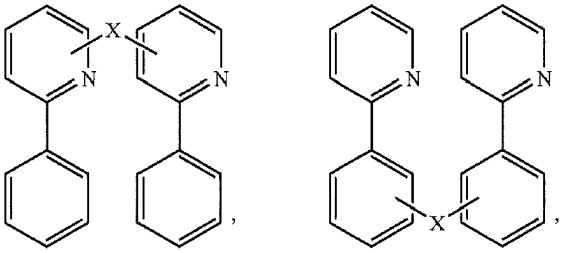
Cy1 is, identically or differently on each occurrence, a substituted or unsubstituted **aromatic homo- or heterocyclic ring having 5 or 6 ring atoms**, which is bonded ionically, covalently or coordinatively to the metal via a ring atom, Cy2 is, identically or differently on each occurrence, a substituted or unsubstituted aromatic homo- or heterocyclic ring having 5 or 6 ring atoms, which is bonded ionically, covalently or coordinatively to the metal via a ring atom; and Cy1 is not identical to Cy2 and one of the two rings bonds via a metal-carbon bond and the other via nitrogen, and Cy1 and Cy2 are linked to one another via substituents and thus define a polycyclic, aliphatic or aromatic ring system wherein Cy1 and Cy2 can be optionally substituted by R^1,

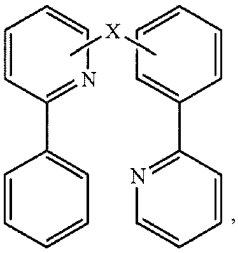
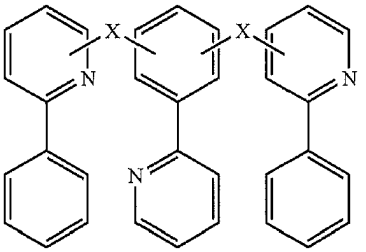
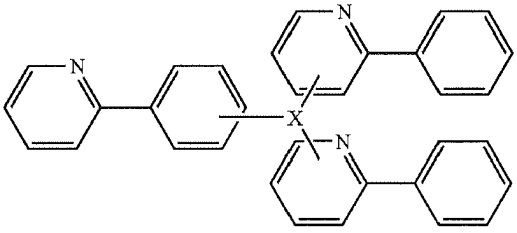
and wherein the Cy1 and Cy2 each consists of C, N, O, or S or a mixture thereof,

(with Pt as the metal

	and X = -(CR2)- and L being photoactive ligands having the formula II wherein R1 and R2, R2 and R3, and R3 and R4 together form an aryl or heteroaryl group)
	and where L3, identically or differently on each occurrence, is a mono- or bidentate, neutral or monoanionic ligand, and where a is 0.
23. The compound of claim 22, wherein the photoactive ligands are selected from compounds of the formula IV (IV)  wherein: ring A is an aromatic heterocyclic ring or a fused aromatic heterocyclic ring with at least one nitrogen atom that coordinates	Claim 1 shows that the ligand contains N and can be a substituted or unsubstituted aromatic homo- or heterocyclic ring having 5 or 6 ring atoms. (n and m can be 0). (see claim 6)

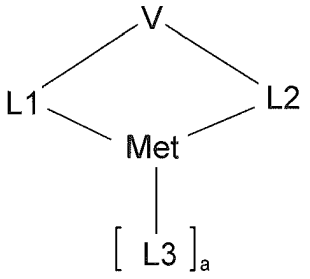
to the metal M, Y is selected from carbon or nitrogen, each R^5 is independently selected from the group consisting of alkyl, alkenyl, alkynyl, aralkyl, CN, CF_3, NR_2, NO.sub.2, OR, halo, and aryl, and additionally, or alternatively, two R.sup.5 groups on adjacent ring atoms form a fused 5- or 6-membered aromatic group, each R.sup.6 is independently selected from the group consisting of alkyl, alkenyl, alkynyl, aralkyl, CN, CF_3, NR_2, NO_2, OR, halo, and aryl, and additionally, or alternatively, two R.sup.6 groups on adjacent ring atoms form a fused 5- or 6-membered aromatic group, each R is independently selected from H, alkyl, aralkyl, aryl and heteroaryl, n is 0 to 4, and m is 0 to 4. 24. The compound of claim 22, wherein $[X_a\text{--}(L)_b]$ has the formula:	Claim 1, the first, second and third of the depicted ligands are covered in claim 1.

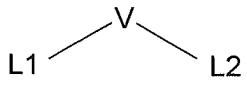


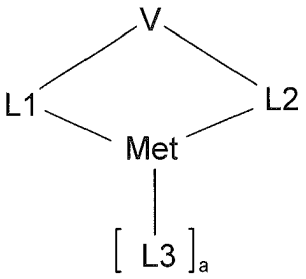


or


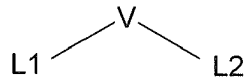
33. The compound of claim 22, wherein X is linked to each L via a covalent bond to a pyridyl moiety in each L.

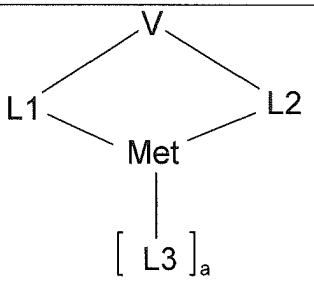
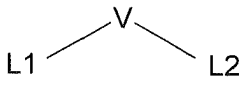
Claim 1 shows that the ligand contains N and can be a substituted or unsubstituted aromatic homo- or heterocyclic ring having 5 ring atoms.

37. The compound of claim 22 wherein the transition metal is selected from the group consisting of Ir, Pt, Pd, Rh, Re, Os, Au, and Ag.	Claim 33. The compound as claimed in claim 1, wherein M is Ir, Pd, Pt, Ag or Au. (see also claim 6)
38. The compound of claim 22 wherein the transition metal is Ir.	Claim 34. The compound as claimed in claim 1, wherein M is Ir. (see also claim 6)
39. An organic light emitting device comprising an anode, a cathode, and an organic layer disposed between the anode and the cathode,	Claim 28. An electronic device comprising at least one compound according to claim 1.
wherein the organic layer comprises a metal complex comprising: a metal; a first ligand bound to the metal, wherein the first ligand is a bidentate ligand; a second ligand bound to the metal; and a linking group that covalently links the first ligand and the second ligand,	Claim 1. A compound of the Structure 1  Structure 1

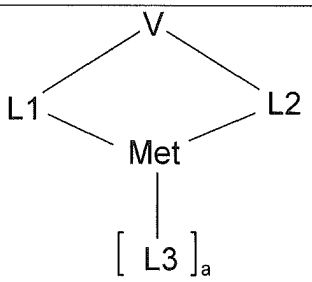
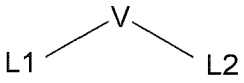
wherein the linking group provides no iL-conjugation between the first ligand and the second ligand; and wherein the metal complex is a phosphorescent organometallic emissive material.	wherein Structure 1 Met is a metal coordinated to a tetradentate chelating ligand Lig of Structure 2 Lig =  Structure 2 where V is a CR_2 R … V connects the two ligand moieties L1 and L2, which may be identical or different on each occurrence, **covalently to one another,** and where the two ligand moieties L1 and L2 satisfy Structure 3 L1, L2 =  Structure 3 Cy1 is, identically or differently on each occurrence, a substituted or unsubstituted aromatic homo- or heterocyclic ring having 5 or 6 ring atoms, which is bonded ionically, covalently or coordinatively to the metal via a ring atom, Cy2 is, identically or differently on each occurrence, a substituted

	or unsubstituted aromatic homo- or heterocyclic ring having 5 or 6 ring atoms, which is bonded ionically, covalently or coordinatively to the metal via a ring atom; and Cy1 is not identical to Cy2 and one of the two rings bonds via a metal-carbon bond and the other via nitrogen, and Cy1 and Cy2 are linked to one another via substituents and thus define a polycyclic, aliphatic or aromatic ring system wherein Cy1 and Cy2 can be optionally substituted by R^1,
41. An organic light emitting device comprising an anode, a cathode, and an organic layer disposed between the anode and the cathode, wherein the organic layer comprises a phosphorescent organometallic emissive material comprising a metal bound to two or three bidentate ligands, wherein two or more of the bidentate ligands are covalently linked by one or more linking groups.	Claims 28 and 1. Claim 1. A compound of the Structure 1  Structure 1 wherein Structure 1

	Met is a metal coordinated to a tetradentate chelating ligand Lig of Structure 2 Lig =  Structure 2 where V is a CR_2 R … V connects the two ligand moieties L1 and L2, which may be identical or different on each occurrence, **covalently to one another,** and where the two ligand moieties L1 and L2 satisfy Structure 3
42. The organic light emitting device of claim 41 wherein the organometallic emissive material comprises a compound represented by the formula $[X_a\text{--}(L)_bM$ wherein	Claims 28 and 1. Claim 1. A compound of the Structure 1

M is a transition metal, Tl, Pb, Bi, In, Sn, Sb, or Te;	 Structure 1 wherein Structure 1 Met is a metal coordinated to a tetradentate chelating ligand Lig of Structure 2
L is a bidentate ligand; X is a linking group that links two or more L; a is 1 to 4; b is 2 or 3; wherein the bidentate ligands are selected from bidentate photoactive ligands, and bidentate ancillary ligands wherein at least one of the bidentate ligands is a bidentate photoactive ligand.	Lig =  Structure 2 where V is a CR_2 R … V connects the two ligand moieties L1 and L2, which may be identical or different on each occurrence, covalently to one another, and where the two

	ligand moieties L1 and L2 satisfy Structure 3 {L1 and L2 is a bidentate ligand}
43. The organic light emitting device of claim 42 wherein the transition metal is selected from the group consisting of Ir, Pt, Pd, Rh, Re, Os, Au, and Ag.	Claim 35. The electonic device as claimed in claim 27, wherein the device is an organic light emitting device and M is Ir.. (see also claim 6)
44. The organic light emitting device of claim 42 wherein the transition metal is Ir.	Claim 35. The electonic device as claimed in claim 27, wherein the device is an organic light emitting device and M is Ir.. (see also claim 6)
45. A compound of the formula $[X_a—(L)_b]M$	Claim 1. A compound of the Structure 1

	 Structure 1 wherein Structure 1
wherein M is a transition metal, Tl, Pb, Bi, In, Sn, Sb or Te; L is a bidentate ligand;	Met is a metal
	coordinated to a tetradentate chelating ligand Lig of Structure 2
	Lig =  Structure 2
X is a linking group that links two or more L; a is 1 to 4, b is 2 or 3	where V is a CR_2
	R …
wherein the bidentate ligands are selected from bidentate photoactive ligands, and bidentate ancillary ligands wherein at least one of the bidentate ligands is a bidentate photoactive ligand bound to the transition metal, Tl, Pb, Bi, In, Sn. Sb or Te through a carbon-metal bond; and wherein the compound is	V connects the two ligand moieties L1 and L2, which may be identical or different on each occurrence, **covalently to one another,** and where the two ligand moieties L1 and L2

a phosphorescent emissive material.	satisfy Structure 3 {the ligands can be bidentate ligands}
46. The compound of claim 45 wherein the transition metal is selected from the group consisting of Ir, Pt, Pd, Rh, Re, Os, Au, and Ag.	Claim 33. The compound as claimed in claim 1, wherein M is Ir, Pd, Pt, Ag or Au. (see also claim 6)
47. The compound of claim 45 wherein the transition metal is Ir.	Claim 34 The compound as claimed in claim 1, wherein M is Ir. (see also claim 6)